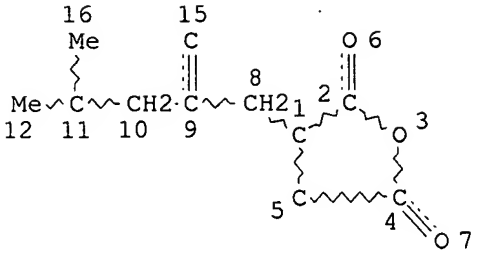
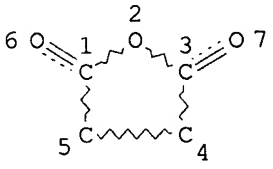
=> d que
L1 STR

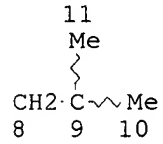


NODE ATTRIBUTES:
CONNECT IS E1 RC AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L3 7 SEA FILE=REGISTRY SSS FUL L1
L9 STR





NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
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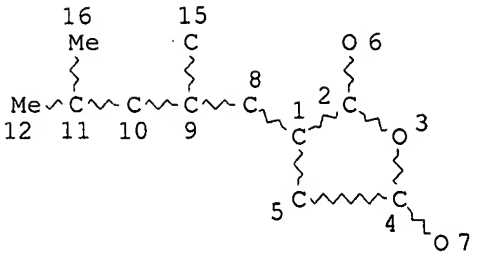
L12 12 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND PMS/CI
L13 STR



NODE ATTRIBUTES:
CONNECT IS E1 RC AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

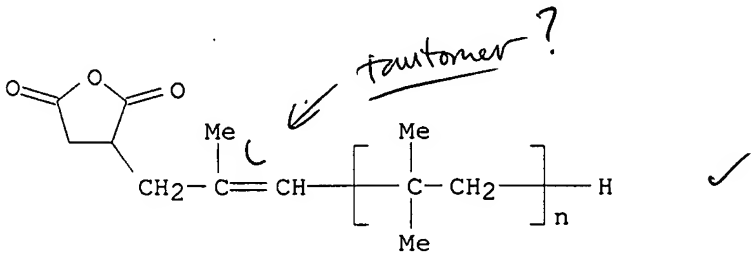
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L14 7 SEA FILE=REGISTRY SUB=L12 SSS FUL L13
L15 3 SEA FILE=REGISTRY ABB=ON PLU=ON L14 NOT L3
L16 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L15

=> d ibib abs hitstr 1-5

L16 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:511184 HCAPLUS
DOCUMENT NUMBER: 133:231613
TITLE: Ultra-high-density magnetic information storage technologies
AUTHOR(S): Ohashi, Keishi; Ishiwata, Nobuyuki; Yanagisawa, Masahiro; Sato, Akinobu; Tsuboi, Shinzo; Hokkyo, Hirotaka
CORPORATE SOURCE: Functional Devices Research Laboratories, Japan
SOURCE: NEC Research & Development (2000), 41(2), 160-165
CODEN: NECRAU; ISSN: 0547-051X
PUBLISHER: NEC Creative, Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three approaches used to achieve ultra-high-d. recording of 100 Gbit/in2 are discussed. In order to overcome the thermal fluctuation problem of recorded patterns, a write head with Co-Ni-Fe poles has been developed. The Co-Ni-Fe pole generates the strongest write field. The head wrote well in media with a coercivity of 7 kOe, which is sufficiently large for ultra-high-d. recording. A narrow gap Co-Ni-Fe head for perpendicular recording has also been developed. The exptl. results on contact recording and a double-layer perpendicular medium are also discussed.
IT **197852-64-5**
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(maleic-anhydride-modified; in ultra-high-d. magnetic information storage technologies)
RN 197852-64-5 HCAPLUS
CN Poly(1,1-dimethyl-1,2-ethanediyl), .alpha.-[2-methyl-3-(tetrahydro-2,5-

dioxo-3-furanyl)-1-propenyl]-.omega.-hydro- (9CI) (CA INDEX NAME)

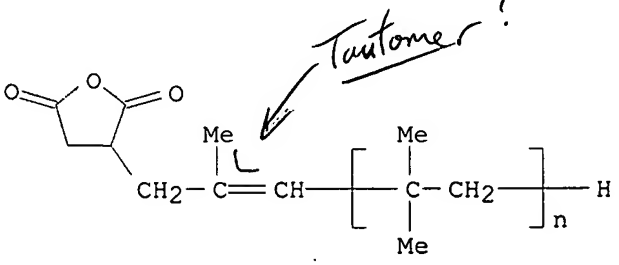


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:377315 HCAPLUS
Correction of: 1997:649525
DOCUMENT NUMBER: 132:355919
Correction of: 127:340872
TITLE: Head-disk interface design for in-contact recording using wet systems
AUTHOR(S): Sato, Akinobu; Ajiki, Ken; Yanagisawa, Masahiro; Tsukamoto, Yuji
CORPORATE SOURCE: NEC Corp., Kawasaki, 216, Japan
SOURCE: IEEE Transactions on Magnetics (1997), 33(5, Pt. 1), 3163-3165
CODEN: IEMGAQ; ISSN: 0018-9464
PUBLISHER: Institute of Electrical and Electronics Engineers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors have studied head-disk interface design concept of the wet systems is to realize a low bouncing height of sliders by using the meniscus attractive force of the lubricant between slider and disk. The lubricant offered high wear performance at the same time. Lubricants with high surface energies suppressed the bouncing height of contact sliders. A bouncing height of 3 nm was achieved for a combination of 30% contact sliders and lubricants of maleic anhydride modified polybutene. A contact slider design, with a meniscus-controlled contact pad, is proposed for contact sliders using wet systems. The bouncing of the slider was suppressed by regulating the etching depth of the meniscus-controlled contact pad. High wear performance of the in-contact recording system was confirmed by both the drag test for disks and the seek test for heads. The large readback signal and the pulse width measured at 50% amplitude (PW50) for the in-contact recording, compared with flying heads, was demonstrated.

IT **197852-64-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(MPBT; head-disk interface design for in-contact recording using wet systems)
RN 197852-64-5 HCAPLUS
CN Poly(1,1-dimethyl-1,2-ethanediyl), .alpha.-[2-methyl-3-(tetrahydro-2,5-dioxo-3-furanyl)-1-propenyl]-.omega.-hydro- (9CI) (CA INDEX NAME)

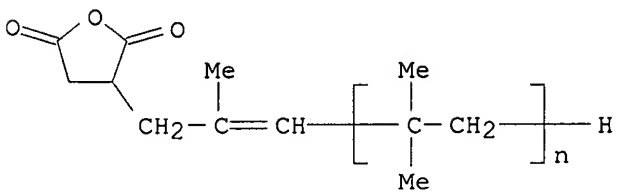


L16 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:649525 HCAPLUS
DOCUMENT NUMBER: 127:340872
TITLE: Head-disk interface design for in-contact recording using wet systems
AUTHOR(S): Sato, Akinobu; Ajiki, Ken; Yangisawa; Tsukamoto, Yuji
CORPORATE SOURCE: FUnctional Devices Res. Labs., NEC Corp., Kawasaki, 216, Japan
SOURCE: IEEE Transactions on Magnetics (1997), 33(5, Pt. 1), 3163-3165
CODEN: IEMGAQ; ISSN: 0018-9464
PUBLISHER: Institute of Electrical and Electronics Engineers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors have studied head-disk interface design concept of the wet systems is to realize a low bouncing height of sliders by using the meniscus attractive force of the lubricant between slider and disk. The lubricant offered high wear performance at the same time. Lubricants with high surface energies suppressed the bouncing height of contact sliders. A bouncing height of 3 nm was achieved for a combination of 30% contact sliders and lubricants of maleic anhydride modified polybutene. A contact slider design, with a meniscus-controlled contact pad, is proposed for contact sliders using wet systems. The bouncing of the slider was suppressed by regulating the etching depth of the meniscus-controlled contact pad. High wear performance of the in-contact recording system was confirmed by both the drag test for disks and the seek test for heads. The large readback signal and the pulse width measured at 50% amplitude (PW50) for the in-contact recording, compared with flying heads, was demonstrated.

IT **197852-64-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(MPBT; head-disk interface design for in-contact recording using wet systems)

RN 197852-64-5 HCAPLUS
CN Poly(1,1-dimethyl-1,2-ethanediyl), .alpha.-[2-methyl-3-(tetrahydro-2,5-dioxo-3-furanyl)-1-propenyl]-.omega.-hydro- (9CI) (CA INDEX NAME)



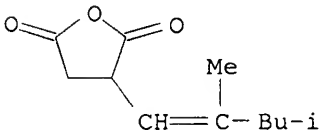
L16 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:720539 HCAPLUS
DOCUMENT NUMBER: 126:41636
TITLE: Magneto-optical investigations on microstructural processes in magnetic fluids
AUTHOR(S): Sofonea, Victor; Bica, Doina; Perzynski, Regine; Hasmonay, Eric; Bacri, Jean-Claude; Cabuil, Valerie
CORPORATE SOURCE: Research Center Hydrodynamics, Cavitation and Magnetic Fluids Technical University Timisoara, Timisoara, R-1900, Rom.
SOURCE: Romanian Reports in Physics (1995), 47(3-5), 307-317
CODEN: RORPED; ISSN: 1221-1451
PUBLISHER: Editura Academiei Romane
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Magneto-optical effects in magnetic fluids are powerful tools for the study of the microstructural processes induced in magnetic fluids under the action of magnetic fields. Exptl. results obtained from birefringence and dichroism measurements on 4 special samples prepd. at the Tech. University of Timisoara are presented. Time-dependent structure formation is evidenced after several magnetization cycles and the influence of the prepn. method and of the surfactant layer are discussed.

IT **184713-45-9**
RL: PRP (Properties)
(magneto-optical investigations on microstructural processes in magnetic fluids)
RN 184713-45-9 HCAPLUS
CN 2,5-Furandione, 3-(2,4-dimethyl-1-pentenyl)dihydro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 184713-44-8
CMF C11 H16 O3



L16 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1982:123873 HCAPLUS
DOCUMENT NUMBER: 96:123873
TITLE: Unsaturated polyester compositions
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56155219	A2	19811201	JP 1981-50846	19810403
JP 60008245	B4	19850301		

PRIORITY APPLN. INFO.: JP 1981-50846 19810403

AB Unsatd. polyester compns. curable with low shrinkage and good crack resistance contain an unsatd. polyester prepd. using C8-12 alkenylsuccinic acid or anhydride in the acid monomer component and optionally .ltoreq.100 phr C8-12 alkenyl succinic acid or anhydride as a crosslinking monomer. E.g., an unsatd. polyester [**81139-72-2**] (acid value 20) was prepd. from diethylene glycol 116, adipic acid 74, and (diisobutenyl)succinic anhydride 105 g in the presence of 0.05 g hydroquinone, mixed with styrene to a 60% soln., mixed with 2.0% Bz2O2, cast, and cured at 120.degree. for 5 h to give a 2 mm specimen with tensile strength 0.9 kg/mm2 and elongation 120%.

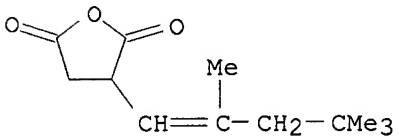
IT **81139-72-2P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. of)

RN 81139-72-2 HCAPLUS

CN Hexanedioic acid, polymer with dihydro-3-(2,4,4-trimethyl-1-pentenyl)-2,5-furandione and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 72198-16-4
CMF C12 H18 O3



CM 2

CRN 124-04-9
CMF C6 H10 O4

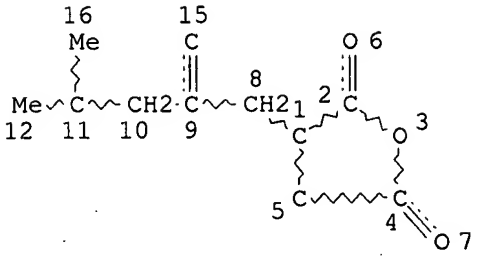
$HO_2C-(CH_2)_4-CO_2H$

CM 3

CRN 111-46-6
CMF C4 H10 O3

$HO-CH_2-CH_2-O-CH_2-CH_2-OH$

=> d que
L1 STR



NODE ATTRIBUTES:
CONNECT IS E1 RC AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

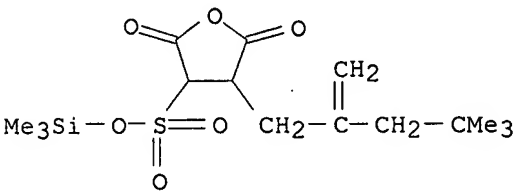
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L3 7 SEA FILE=REGISTRY SSS FUL L1
L4 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

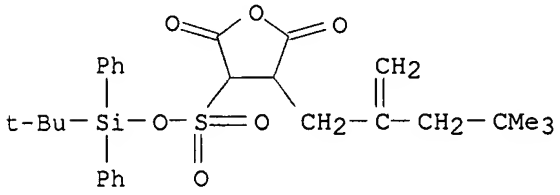
=> d ibib abs hitstr 1-11

L4 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:498183 HCAPLUS
DOCUMENT NUMBER: 113:98183
TITLE: Esters of .alpha.-sulfomaleic anhydride as powerful electrophiles for polyolefin functionalization
AUTHOR(S): Schaedeli, Ulrich; Padias, Anne Buyle; Brois, S. J.; Thaler, Warren A.; Hall, H. K., Jr.
CORPORATE SOURCE: Dep. Chem., Univ. Arizona, Tucson, AZ, 85721, USA
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1990), 28(7), 1781-91
CODEN: JPACEC; ISSN: 0887-624X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Electrophilic derivs. of maleic anhydride were synthesized to test their reactivity in ene reactions with the terminal double bond of hydrocarbon polymers. The sulfo Me and Et esters of sulfomaleic anhydride (I) were reacted with 2,2,4-trimethyl-1-pentene (II), a model compd. for the end group of the hydrocarbon polymers. The esters were more oleophilic than I itself, but many side reactions occurred. Trimethylsilyl and tert-butyldiphenylsilyl esters were also synthesized and reacted with II, and the ene reactions proceeded well in bulk, but the ene adducts decompd. upon heating. The powerful dienophilic character of these esters was demonstrated by a series of [4 + 2] cycloaddns.
IT **128940-33-0P 128940-34-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 128940-33-0 HCAPLUS

CN 3-Furansulfonic acid, 4-(4,4-dimethyl-2-methylenepentyl)tetrahydro-2,5-dioxo-, trimethylsilyl ester (9CI) (CA INDEX NAME)



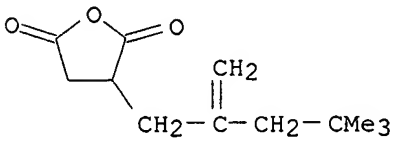
RN 128940-34-1 HCAPLUS
CN 3-Furansulfonic acid, 4-(4,4-dimethyl-2-methylenepentyl)tetrahydro-2,5-dioxo-, (1,1-dimethylethyl)diphenylsilyl ester (9CI) (CA INDEX NAME)



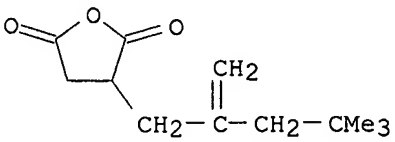
L4 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1988:631662 HCAPLUS
DOCUMENT NUMBER: 109:231662
TITLE: Study of the synthesis of poly(isobutylene-b-amide-11) by polycondensation of .alpha.,.omega.-dianhydride oligoisobutylene with .alpha.,.omega.-diamino oligoamide-11. I. Study of amine-anhydride and amide-anhydride reactions on low-molecular-weight models and on oligomers and polymers
AUTHOR(S): Tessier, Martine; Marechal, Ernest
CORPORATE SOURCE: Lab. Synth. Macromol., CNRS, Paris, 75005, Fr.
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1988), 26(10), 2785-810
CODEN: JPACEC; ISSN: 0887-624X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The side reactions connected with the polycondensation of .alpha.,.omega.-diaminooligoamides and .alpha.,.omega.-dianhydride oligoisobutylenes are studied on low- and high-mol.-wt. models. Models for amine and anhydride end groups are dodecylamine and (2-dodecen-1-yl)succinic anhydride (I), resp.; their reaction is studied in bulk and in soln. and the products are analyzed by 1H-, 13C-, and 1H-13C-NMR and GPC. Some of these products and the junctions between the blocks are prepd. independently. Models of amide groups in the chain are N-dodecyldodecanamide and N-dodecyloctadecanamide; their reaction with I results in cleavage with formation of imide groups. They show unambiguously that crosslinking which accompanies the block polycondensation originates from the reaction of amino end groups with the intermediary acid groups resulting from the amine-anhydride reaction.

IT **72242-65-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as model for isobutylene-nylon-11 block copolymer)
RN 72242-65-0 HCAPLUS
CN 2,5-Furandione, 3-(4,4-dimethyl-2-methylenepentyl)dihydro- (9CI) (CA INDEX NAME)



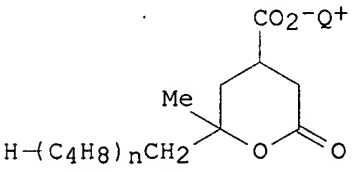
L4 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1984:121733 HCAPLUS
DOCUMENT NUMBER: 100:121733
TITLE: Synthesis of mono- and difunctional oligoisobutylenes - IV. Modification of .alpha.,.omega.-dichlorooligoisobutylene by reaction with maleic anhydride. Preliminary study on block polycondensation
AUTHOR(S): Tessier, M.; Marechal, E.
CORPORATE SOURCE: Lab. Synth. Macromol., Paris, 75005, Fr.
SOURCE: European Polymer Journal (1984), 20(3), 281-90
CODEN: EUPJAG; ISSN: 0014-3057
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thermal dehydrochlorination of .alpha.,.omega.-dichlorooligoisobutylene, prepd. by initiation with 1,4-(ClCMe2)2C6H4 (T., M., and Nguyen, A. H., 1981), led to the formation of both endo and exo double bonds; endo double bonds were mainly those of 2,4-dimethyl-2-penten-4-ylphenyl end group and exo double bonds belonged to either short end-groups (2,4-dimethyl-1-penten-4-ylphenyl) or long ones (2,4-dimethyl-1-penten-4-yloligoisobutylenylphenyl). Reaction of the dichlorinated oligomers with maleic anhydride (I) gave a mixt. of oligomers with anhydride, substituted propenyl, or indanic terminations. Pure .alpha.,.omega.-bis(2-methyl-2-propenyl)oligoisobutylene was prepd. by basic dehydrochlorination of .alpha.,.omega.-dichlorinated oligomer; only exo double bonds were formed. This .alpha.,.omega.-unsatd. oligomer reacted with I to give an oligomeric mixt. with functionality, with respect to I, of 1.25 that contained endo double bonds and indan rings. When a catalyst (dichloromaleic anhydride [1122-17-4]) was added, 2 mols. of I could react with the same end of the chain. Various polyamides were prepd. from the .alpha.,.omega.-dianhydride oligomers.
IT **72242-65-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with propylamine)
RN 72242-65-0 HCAPLUS
CN 2,5-Furandione, 3-(4,4-dimethyl-2-methylenepentyl)dihydro- (9CI) (CA INDEX NAME)



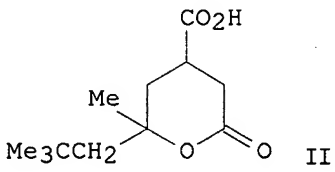
L4 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1982:142704 HCAPLUS
DOCUMENT NUMBER: 96:142704
TITLE: Alkylacetonecarboxylic acids and their salts useful as corrosion protection agents
INVENTOR(S): Hoenl, Hans; Trieselt, Wolfgang
PATENT ASSIGNEE(S): BASF A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 16 pp
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3102353	A1	19820114	DE 1981-3102353	19810124

PRIORITY APPLN. INFO.: DE 1980-3005494 19800214
GI



I

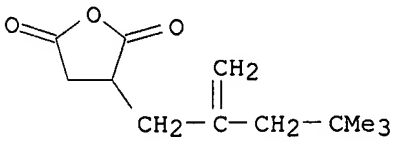


II

AB I (C4H8 = butadiene-free olefin cut, contg. .gtoreq.30% isobutene, n = 1-5, Q = H, alkali, alk. earth, or substituted ammonium) were prepd. as corrosion inhibitors. Thus, 500 parts diisobutenylsuccinic anhydride and 500 vol. parts H2O were autoclaved 2 h at 185.degree. to give 77% II, the diethanolamine and triethanolamine salts of which were also prepd. (in soln.). These were better corrosion inhibitors than the corresponding succinic acid analogs.

IT **72242-65-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis-rearrangement of)

RN 72242-65-0 HCAPLUS
CN 2,5-Furandione, 3-(4,4-dimethyl-2-methylenepentyl)dihydro- (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1982:53987 HCAPLUS
DOCUMENT NUMBER: 96:53987
TITLE: Photosetting resin composition
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56135504	A2	19811023	JP 1980-40041	19800327
JP 63034881	B4	19880712		

PRIORITY APPLN. INFO.: JP 1980-40041 19800327

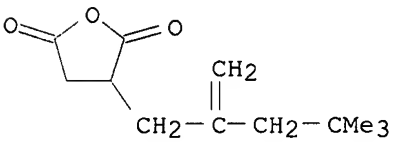
AB The title compn. comprises 20-80 parts unsatd. polyester (prepd. from .alpha.,.beta.-unsatd. dicarboxylic acids, alkenylsuccinic acids or their anhydrides, and polyols) and 20-80 parts (meth)acrylic monomer and affords the products having improved flexibility and vol. shrinkage. E.g., a blend of maleic anhydride 196, phthalic anhydride 148, diisobutenylsuccinic anhydride 420, ethylene glycol 155, propylene glycol 228, and hydroquinone 0.17 part reacted in N at 150.degree. for 2 h to obtain acid no. 110. The polyester [**80512-36-3**] 50 parts was dild. with 50 parts neopentyl glycol diacrylate [2223-82-7] contg. 3 parts benzophenone [119-61-9] and 0.01 parts hydroquinone, coated onto a plate, and cured with UV light to give a film with DuPont impact >50 cm.

IT **80512-36-3**
RL: USES (Uses)
(acrylate-crosslinked, photocured coatings, impact-resistant)

RN 80512-36-3 HCAPLUS
CN 1,3-Isobenzofurandione, polymer with 3-(4,4-dimethyl-2-methylenepentyl)dihydro-2,5-furandione, 1,2-ethanediol, 2,5-furandione and 1,2-propanediol (9CI) (CA INDEX NAME)

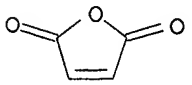
CM 1

CRN 72242-65-0
CMF C12 H18 O3



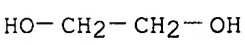
CM 2

CRN 108-31-6
CMF C4 H2 O3



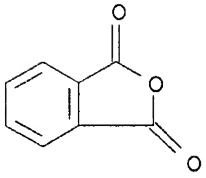
CM 3

CRN 107-21-1
CMF C2 H6 O2



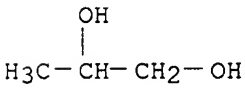
CM 4

CRN 85-44-9
CMF C8 H4 O3



CM 5

CRN 57-55-6
CMF C3 H8 O2

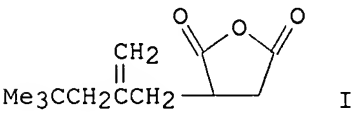


L4 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1982:6555 HCAPLUS
DOCUMENT NUMBER: 96:6555
TITLE: Diisobutenylsuccinic anhydride
PATENT ASSIGNEE(S): Goi Kasei K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56115783	A2	19810911	JP 1980-20943	19800220
JP 59034189	B4	19840821		

PRIORITY APPLN. INFO.: JP 1980-20943 19800220
GI

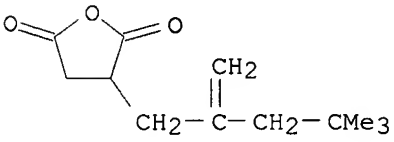


I

AB The title compd. (I) was prepd. by reaction of Me3CCH2CMe:CH2 (II) with maleic anhydride in the presence of p-RNHC6H4CH2C6H4NHR1-p (III, R,R1 = alkyl). Thus, autoclaving 224 g crude II (contg. 70.8% II) with 65.4 g maleic anhydride in the presence of 0.29 g III (R = R1 = EtCHMe) at 200.degree. for 2 h gave 2.9 g I with 95.2% selectivity vs. 91.8% without the methylenedianiline.

IT **72242-65-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 72242-65-0 HCAPLUS
CN 2,5-Furandione, 3-(4,4-dimethyl-2-methylenepentyl)dihydro- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1981:176053 HCAPLUS
DOCUMENT NUMBER: 94:176053
TITLE: Unsaturated polyester casting compositions
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55155023	A2	19801203	JP 1979-63567	19790522

PRIORITY APPLN. INFO.: JP 1979-63567 19790522

AB Polyesters derived from .alpha.,.beta.-unsatd. dicarboxylic acids and (or) alkenylsuccinic anhydride and glycols are cast and cured without much shrinkage. Thus, a mixt. of diethylene glycol 116, adipic acid 74, hydroquinone 0.05, and (4,4-dimethyl-2-methylenepentyl)succinic anhydride 105 g was heated 8 h at 200.degree. to give copolymer (I) [**77222-05-0**]. A compn. of I 60, styrene 40, and Bz2O2 2 parts was poured in a mold and heated 5 h at 120.degree. to give 2-mm sheets having tensile strength 0.9 kg/mm2 and elongation 120%. When the above compn. was cast in a tin can and cured 5 h at 120.degree. the product had good adhesion to the can and no cracks.

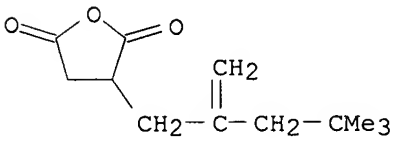
IT **77222-05-0**
RL: USES (Uses)
(casting compns., contg. styrene, with reduced shrinkage during curing)

RN 77222-05-0 HCAPLUS

CN Hexanedioic acid, polymer with 3-(4,4-dimethyl-2-methylenepentyl)dihydro-2,5-furandione and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

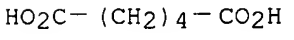
CM 1

CRN 72242-65-0
CMF C12 H18 O3



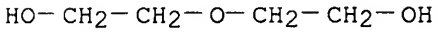
CM 2

CRN 124-04-9
CMF C6 H10 O4



CM 3

CRN 111-46-6
CMF C4 H10 O3



L4 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1981:47122 HCAPLUS
DOCUMENT NUMBER: 94:47122
TITLE: Diisobutenylsuccinic anhydride
PATENT ASSIGNEE(S): Itsui Kasei K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55100374	A2	19800731	JP 1979-6667	19790123
JP 59019547	B4	19840507		

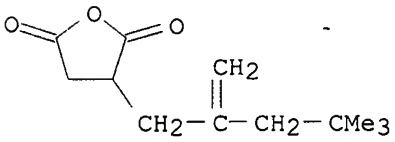
PRIORITY APPLN. INFO.: JP 1979-6667 19790123

AB Diisobutylene mixt. (I; 2.00 mol, contg. Me3CCH2CHMe:CH2 70.8, Me3CCH:CMe2 25.4, Me3CCH2CH2CH:CH2 0.6, MeCH2CHMeCEt:CH2 0.4, Me2CHCH2CMe:CHMe 1.5, and Me2CHCH:CMeEt 1.3 wt. %), 0.677 mol maleic anhydride (II), and .alpha.-naphthol (0.44 wt. % of II) reacted 7 h with stirring at 200.degree., 200 g of the mixt. was distd. at 100-150.degree. (bath temp.) in vacuo to recover remaining I and II (105.0 and 2.0 g, resp.) and at 142-6.degree. under 3 mm Hg to give 87.0 g diisobutenylsuccinic anhydride (III) with 95.2% selectivity, compared with 76.8 and 80.8 g III with 89.2 and 92.0% selectivity by reaction with hydroquinone and phenothiazine, resp., in place of .alpha.-naphthol.

IT **72242-65-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 72242-65-0 HCAPLUS

CN 2,5-Furandione, 3-(4,4-dimethyl-2-methylenepentyl)dihydro- (9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:199309 HCAPLUS
DOCUMENT NUMBER: 92:199309
TITLE: Unsaturated polyester molding compositions
INVENTOR(S): Sekiguchi, Masatsugu; Ewami, Etsuji; Saito, Takayuki
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54163990	A2	19791227	JP 1978-73019	19780616
JP 56032325	B4	19810727		

PRIORITY APPLN. INFO.: JP 1978-73019 19780616

AB Mixts. of 50-90 parts polyesters from dicarboxylic acids, glycols, and

alkenylsuccinic acid and 10-50 parts dialkyl alkenylsuccinate are molded to products with low mold shrinkage and good mech. strength. Thus, heating propylene glycol 11, (4,4-dimethyl-2-methylenepentyl)succinic anhydride 5, and phthalic anhydride 5 mol with 0.01% p-benzoquinone gives a polyester (I) [**73510-84-6**] with acid no. 25. A mixt. of I 70, di-Me (4,4-dimethyl-2-methylenepentyl)succinate (II) [73528-43-5] 30, and Bz2O2 1 part was molded at 80.degree. to a plate with mold shrinkage 3.0%, flexural strength 12.5 kg/mm2, tensile strength 7.2 kg/mm2, elongation 8.7%, impact strength 7.4 ft-lb/in., and water resistance at 100.degree. >72h, compared with 5.9, 10.8, 5.3, 4.0, 5.0, and >72, resp., with styrene in place of II.

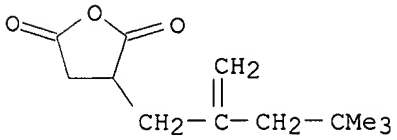
IT **73510-84-6**
RL: USES (Uses)
(molding compns., contg. alkenylsuccinate esters, with low mold shrinkage)

RN 73510-84-6 HCAPLUS

CN 1,3-Isobenzofurandione, polymer with 3-(4,4-dimethyl-2-methylenepentyl)dihydro-2,5-furandione and 1,2-propanediol (9CI) (CA INDEX NAME)

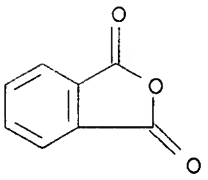
CM 1

CRN 72242-65-0
CMF C12 H18 O3



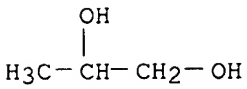
CM 2

CRN 85-44-9
CMF C8 H4 O3



CM 3

CRN 57-55-6
CMF C3 H8 O2



L4 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:24429 HCAPLUS
DOCUMENT NUMBER: 92:24429
TITLE: High-solids alkyd coating compositions
INVENTOR(S): Fujishima, Minoru; Owada, Masahiro; Saito, Takayuki
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

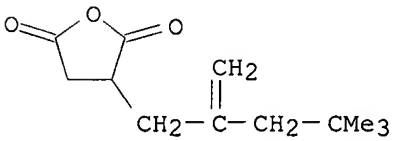
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54081340	A2	19790628	JP 1977-149686	19771213
JP 55012470	B4	19800402		

PRIORITY APPLN. INFO.: JP 1977-149686 19771213

AB High-solids alkyd coating compns. contained 79-81% alkyds (acid value <20, OH value 30-300) derived from (diisobutenyl)succinic anhydride (I) and had viscosity 4-100 P. For example, soybean oil fatty acid 500, I 254, and trimethylolpropane 300 parts were heated in the presence of a small amt. of xylene at 180.degree. for 1 h and then at 280.degree. to acid value 5.1 and OH value 112 and dild. with xylene to give an 80.6% solids alkyd (II). A compn. from II 100, Millionate MR 27.9, coal tar 50, and talc 50 parts gave a room temp.-cured coating (on tinplate and steel) with properties comparable or superior to those of a control (57.4%-solids) using Phthalkyd 806-65 in place of II.

IT **72242-65-0D**, polymers with polyols and fatty acids
72300-82-4
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, high-solids)

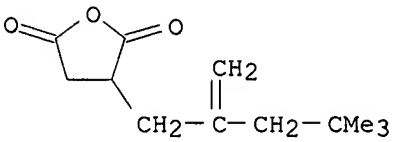
RN 72242-65-0 HCAPLUS
CN 2,5-Furandione, 3-(4,4-dimethyl-2-methylenepentyl)dihydro- (9CI) (CA INDEX NAME)



RN 72300-82-4 HCAPLUS
CN Benzoic acid, 4-(1,1-dimethylethyl)-, polymer with 3-(4,4-dimethyl-2-methylenepentyl)dihydro-2,5-furandione, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and oxybis[propanol] (9CI) (CA INDEX NAME)

CM 1

CRN 72242-65-0
CMF C12 H18 O3



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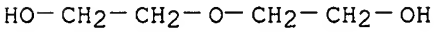
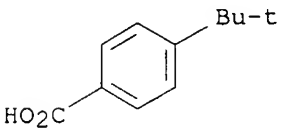
CRN 25265-71-8
CMF C6 H14 O3
CCI IDS



2 (D1—Me)

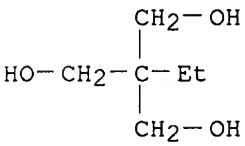
CM 3

CRN 98-73-7
CMF C11 H14 O2



CM 4

CRN 77-99-6
CMF C6 H14 O3

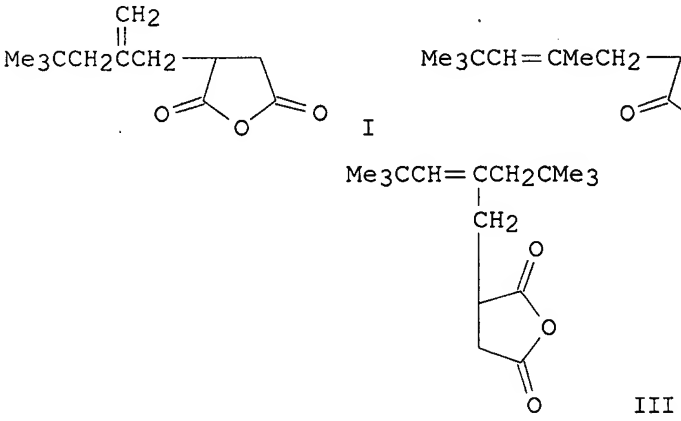


L4 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:23538 HCAPLUS

DOCUMENT NUMBER: 92:23538
TITLE: Epoxy resin curing compositions
INVENTOR(S): Makino, Daisuke; Saito, Takayuki
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54087799	A2	19790712	JP 1977-156906	19771226

PRIORITY APPLN. INFO.: JP 1977-156906 19771226
GI

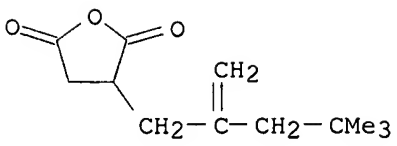


AB Epoxy resins contg. crosslinkers I [**72242-65-0**], II [72242-66-1], and III [72242-67-2] had excellent pot life and gave elec. insulators with excellent thermal shock resistance. Thus, Epikote 828 (IV) [25068-38-6] contg. 110 phr I-II and 1 phr 2-ethyl-4-methylimidazole had viscosity (25.degree.) 11.3 and 18.4 P before and after 24 h storage, resp., compared with 19.4 and 35.7, resp., for a control contg. dodecenylsuccinic anhydride in place of I-II. When IV contg. I-II was cured 5 h at 120.degree., the cured resin had better thermal shock resistance than the control.

IT **72242-65-0**
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for epoxy resin elec. insulators)

RN 72242-65-0 HCAPLUS

CN 2,5-Furandione, 3-(4,4-dimethyl-2-methylenepentyl)dihydro- (9CI) (CA INDEX NAME)



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L5                STR
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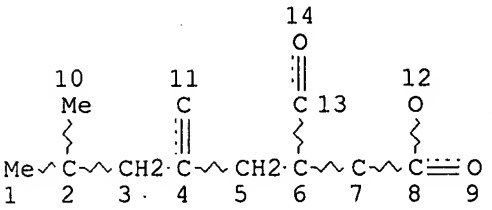


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CONNECT IS E3  RC AT   6
CONNECT IS E2  RC AT   7
CONNECT IS E1  RC AT  11
CONNECT IS E1  RC AT  12
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE
L7             4 SEA FILE=REGISTRY SSS FUL L5
L8             3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7


=> d ibib abs hitstr 18 1-3

L8   ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         1988:631662  HCAPLUS
DOCUMENT NUMBER:          109:231662
TITLE:                    Study of the synthesis of poly(isobutylene-b-amide-11)
                          by polycondensation of .alpha.,.omega.-dianhydride
                          oligoisobutylene with .alpha.,.omega.-diamino
                          oligoamide-11.  I.  Study of amine-anhydride and
                          amide-anhydride reactions on low-molecular-weight
                          models and on oligomers and polymers
AUTHOR(S):                Tessier, Martine; Marechal, Ernest
CORPORATE SOURCE:         Lab. Synth. Macromol., CNRS, Paris, 75005, Fr.
SOURCE:                   Journal of Polymer Science, Part A:  Polymer Chemistry
                          (1988), 26(10), 2785-810
                          CODEN: JPACEC; ISSN: 0887-624X
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   The side reactions connected with the polycondensation of
     .alpha.,.omega.-diaminooligoamides and .alpha.,.omega.-dianhydride
     oligoisobutylenes are studied on low- and high-mol.-wt. models.  Models
     for amine and anhydride end groups are dodecylamine and
     (2-dodecen-1-yl)succinic anhydride (I), resp.; their reaction is studied
     in bulk and in soln. and the products are analyzed by 1H-, 13C-, and
     1H-13C-NMR and GPC.  Some of these products and the junctions between the
     blocks are prepd. independently.  Models of amide groups in the chain are
     N-dodecyldodecanamide and N-dodecyloctadecanamide; their reaction with I
     results in cleavage with formation of imide groups.  They show
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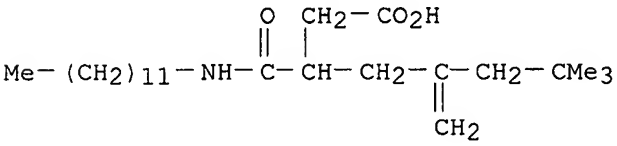
unambiguously that crosslinking which accompanies the block polycondensation originates from the reaction of amino end groups with the intermediary acid groups resulting from the amine-anhydride reaction.

IT **117648-66-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as model for isobutylene-nylon 11 block copolymer)

RN 117648-66-5 HCAPLUS

CN Octanoic acid, 3-[(dodecylamino)carbonyl]-7,7-dimethyl-5-methylene- (9CI) (CA INDEX NAME)



L8 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1987:67838 HCAPLUS

DOCUMENT NUMBER: 106:67838

TITLE: Carboxy-containing peroxides as polymerization intitiators

INVENTOR(S): Sawada, Hideo

PATENT ASSIGNEE(S): Nippon Oils and Fats Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61192704	A2	19860827	JP 1985-33438	19850221
JP 06025208	B4	19940406		

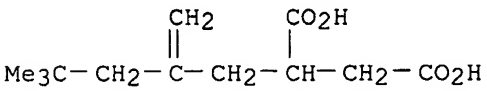
PRIORITY APPLN. INFO.: JP 1985-33438 19850221

AB Title compds. HO2CRC(O)OOCMe2R1 (R = C6-18 alkenylene; R1 = Me, Et, Pr) are sol. in org. solvents and are shock-insensitive and are useful as polymn. initiators in manuf. of carboxy-terminated vinyl polymers. Thus, a mixt. of 36.50 g tert-Bu hydroperoxide and 72.54 g octenylsuccinic anhydride in 446.28 g pentane was mixed dropwise with 10.70 g pyridine in 80 g pentane at 8-10.degree. in 3 min and reaction at 20.degree. for 1 h gave 96.82 g tert-butylperoxy .beta.-carboxyundecenoate (I) exhibiting 10-h half life temp. 98.degree. in PhMe, soly. in PhMe, benzene, and xylene 70-80%, and ballistic mortar test (JIS K4810) 1.00% (of TNT). A mixt. of 10.42 g styrene and 9.85 g I in 50 mL benzene was polymd. at 70.degree. to give a polymer with no.-av. mol. wt. 7720.

IT **5703-15-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tert-Bu hydroperoxide, in prepn. of carboxy-contg. peroxides as)

RN 5703-15-1 HCAPLUS

CN Butanedioic acid, (4,4-dimethyl-2-methylenepentyl)- (9CI) (CA INDEX NAME)



L8 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:199311 HCAPLUS
DOCUMENT NUMBER: 92:199311
TITLE: Polyester electric insulators
INVENTOR(S): Omori, Eiji; Kikuchi, Masao; Makino, Daisuke; Aimono, Yuji
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54159491	A2	19791217	JP 1978-68435	19780607
JP 55027086	B4	19800718		

PRIORITY APPLN. INFO.: JP 1978-68435 19780607

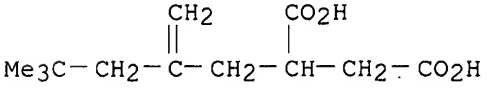
AB Compns. of unsatd. polyesters, reaction products of (4,4-dimethyl-2-methylenepentyl)succinic anhydride with hydroxyalkyl or glycidyl methacrylates, and radical initiators are useful as castable elec. insulators with good adhesion to metals. Thus, a mixt. of 1:1:2 maleic anhydride-phthalic anhydride-propylene glycol copolymer [25037-66-5] 210, mono[2-(methacryloyloxy)ethyl] (4,4-dimethyl-2-methylenepentyl)succinate [**73510-03-9**] 90, Co octanoate 0.3, and MEK peroxide 3 g is heated 1 h at 80.degree. to give a product with good adhesion to metal and heat-shock resistance (30 min at -10.degree., 15 min at room temp, and 30 min at 150.degree.) 4 cycles.

IT **73510-03-9**
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for unsatd. polyester elec. insulators)

RN 73510-03-9 HCAPLUS
CN Butanedioic acid, (4,4-dimethyl-2-methylenepentyl)-, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

CM 1

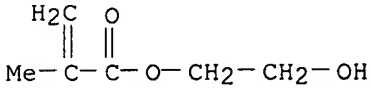
CRN 5703-15-1
CMF C12 H20 O4



CM 2

CRN 868-77-9

CMF C6 H10 O3



S#5

WEST

USPT,PGPB,JPAB,EPAB,DWPI

(alkenylsuccinic anhydride) and (cosmetic or skin)

2003-04-03
13:35:00

S4874

U

USPT,PGPB,JPAB,EPAB,DWPI

alkenylsuccinic anhydride

2003-04-03
13:34:47

S4873

U

USPT,PGPB,JPAB,EPAB,DWPI

((polyisobutenylsuccinic anhydride or polyisobutenyl succinic anhydride)

same (glycerol or triethanolamine or diethylethanolamine or methyl

triglycol or polyethylene glycol 200 or peg 200)) and (cosmetic or skin)

2003-04-03
13:32:37

S4872

U

USPT,PGPB,JPAB,EPAB,DWPI

(polyisobutenylsuccinic anhydride or polyisobutenyl succinic anhydride)

same (glycerol or triethanolamine or diethylethanolamine or methyl

triglycol or polyethylene glycol 200 or peg 200)